California Energy Commission
RENEWABLE ENERGY PROGRAM
Summary of Activities
January 1, 2009 – March 31, 2009

RENEWABLE ENERGY PROGRAM

- ***Increasing renewable energy as an essential part of reducing California's greenhouse gas emissions.***

ACCOMPLISHMENTS

Renewables Portfolio Standard Program

Under California's current Renewables Portfolio Standard (RPS) law, retail sellers are required to increase the renewable content of their electricity sales by at least 1 percent per year, with a goal of serving 20 percent of the state's retail electricity sales with renewables by 2010. In November 2008, Governor Schwarzenegger set into motion higher RPS goals by signing Executive Order S-14-08, which calls on California to raise its renewable energy aims to 33 percent by 2020 and expedite development of renewable energy sites. This more aggressive goal reinforces the importance of renewable energy as a component of the state's greenhouse gas reduction goals codified in Assembly Bill 32 (Núñez, Chapter 488, Statutes of 2006).

The Energy Commission and the CPUC jointly implement the RPS. The Energy Commission's roles are to certify renewable facilities as eligible for the RPS and to design and implement an accounting system to track and verify RPS compliance. The CPUC is responsible for developing the rules for RPS procurement and providing oversight of contract activities, and it administers incentive payments for the above-market costs of renewable energy.

Since the RPS policy was established in 2002, the state's investor-owned utilities (IOUs) — Pacific Gas & Electric, Southern California Edison, and San Diego Gas & Electric — have conducted a number of renewable energy solicitations. From these competitive solicitations (including an all-source solicitation), and also through bilateral negotiations, the IOUs have signed 113 contracts for 10,680 to 13,310 megawatts (MW) of new and existing renewable energy projects to date (range in capacity reflects build-out options). This includes 99 contracts representing 9,978 to 12,519 MW of new, repowered, or restarted renewable facilities. Of these, 32 contracts are with projects that are currently online for 1,356 MW of capacity (1,481 MW is the maximum capacity due to some of those projects being only partially online). Online facilities account for 14 percent of the total minimum contracted capacity for new, repowered, or restarted renewable facilities. (Source: Database of Investor-Owned Utilities' Contracts for Renewable Generation, Contracts Signed towards Meeting the California RPS Targets; updated May 16, 2009, http://www.energy.ca.gov/portfolio/contracts_database.html).

Following are RPS activities for the quarter ending March 31 2009:

- The Energy Commission has certified or pre-certified 694 facilities as eligible for the RPS, representing 22,132 MW of renewable capacity. [1] Of that generating capacity, 12,986 MW is proposed new capacity from 130 planned facilities that have been conditionally pre-certified; however not all are yet under contract. These numbers do not reflect activity in the application queue.
- The Energy Commission staff is continuing efforts to analyze renewable energy claims toward the RPS program for the *2006 Renewables Portfolio Standard Procurement Verification Report*. Previous years' reports compared procurement claims made by IOUs with generation data submitted to various programs by generating facilities. In addition to claims from the large IOUs, the *2006 Verification Report* will also include an analysis of RPS claims made by electric service providers and the small and multi-jurisdictional utilities between 2004 and 2006. A staff workshop was held at the Energy Commission March 26, 2009, to solicit public input on draft tables containing proposed data to be included in the *Verification Report*. Numerous entities provided oral and written comments, which will be incorporated into the draft report, expected to be published in the second quarter of 2009.

RPS Contracts

The IOUs continued RPS contract activities this quarter as a result of their solicitations conducted in 2005, 2007, and 2009. One Advice Letter was submitted to the CPUC this quarter and four contracts were executed as a result of the solicitations. RPS contract activities are detailed in the table, *Renewable Portfolio Standard Contract Activity by Utility, January through March 2009*, located at www.energy.ca.gov/renewables/quarterly_updates/index.html.

Western Renewable Energy Generation Information System

The Energy Commission, in conjunction with the Western Governors' Association and renewable energy market stakeholders, designed an accounting system to verify that renewable energy output is counted only once for the purposes of California's Renewables Portfolio Standard and other regulatory or voluntary programs related to renewable energy throughout the west. With the subsequent addition of efforts by the Western Electricity Coordinating Council, these organizations implemented the Western Renewable Energy Generation Information System (WREGIS), a regional renewable energy certificate tracking and registry system, which provides WREGIS Certificates to support verification of compliance with regulatory and voluntary renewable energy programs in the Western Interconnect. The Energy Commission provided the startup funding for WREGIS and serves as the financial backstop for the program during operations.

- APX, Inc., the System Development & Technical Operations Contractor
    - APX continued to provide maintenance and support services for WREGIS and to make changes to the system that were requested by stakeholders and approved by the WREGIS Committee.

[1] RPS certified or pre-certified renewable facility capacities do not take into account multi-fuel status.

    - APX released the verification of energy delivery functionality to WREGIS February 2. This functionality change was in response to stakeholders from states (including California) with an RPS that includes delivery in their eligibility requirements. This functionality enables California RPS participants to match renewable energy credits retired for compliance with NERC E-tags to verify that energy was delivered into California. APX staff conducted training for WREGIS participants on March 11 to demonstrate the use of the new delivery verification functionality.
- WREGIS Administration
    - 232 companies registered to be Account Holders in WREGIS by March 26, 2009.
    - 887 generators were registered in WREGIS by March 26, 2009.
- The WREGIS Committee held monthly conference calls to discuss and review policy issues related to WREGIS, such as minor changes to system functionality and program documents.
- The WREGIS Stakeholder Advisory Committee, Policy Subcommittee, Change Control Subcommittee, and Operations Subcommittee also met monthly or semi-monthly to discuss issues that may be brought to the WREGIS Committee for review and approval. These supporting committees and subcommittees provide a greater opportunity for stakeholder input and collaboration than the WREGIS Committee meetings.
- Members of the Stakeholder Advisory Committee (SAC) voted for the State/Provincial and Industry -- Other representatives to the WREGIS Committee March 16 – March 26. SAC members reelected Jason Marks of the Public Regulatory Commission of New Mexico and Derek Denniston of Evolution Markets, respectively, for these positions. The WREGIS Committee also agreed to maintain the members filling the Chair, Vice Chair and Secretary seats.
- The Energy Commission was awarded the State Leadership in Clean Energy Award by the Clean Energy States Alliance (CESA) at CESA's meeting in Washington, D.C. on January 13, 2008 for the WREGIS program.
- Following are WREGIS expenditures this quarter from the Consumer Education account (unless noted otherwise):
    - APX, Inc. contract for $3,277,702 for the services of a System Development and Technical Operations (SD&TO) Contractor for WREGIS. The SD&TO Contractor modified an existing generation registry and tracking system to serve the needs of WREGIS and will continue to perform operations and maintenance for the system at least through the end of the Energy Commission/APX Contract in October 2010. Expended $145,408
    - Western Electricity Coordinating Council contract for $2,202,750 for the administration of WREGIS. The WREGIS Administration staff runs the day-to-day operations of WREGIS. Expended $29,299

New Renewable Facilities Program

The intent of the New Renewable Facilities Program (NRFP) was to foster the development of new in-state renewable electricity generation facilities by providing financial support to renewable projects that became operational after September 26, 1996. The program was comprised of two elements: the original program under SB 90, and the program as evolved under SB 1038, SB 1078, and SB 107, which offered SEPs to qualifying facilities to cover the above-market costs of meeting the RPS. In October 2007, the enactment of SB 1036, effective January 1, 2008, eliminated funding for this program with the exception of projects that were still operational as of January 1, 2007. In accordance with the legislation's direction, the Energy Commission implemented the following:

- The Energy Commission terminated all pending awards made to projects under the New Renewable Resources Account of the Renewable Resource Trust Fund (RRTF) prior to January 1, 2002, unless the projects were online and operational by January 1, 2007.
- The Energy Commission's authority to award SEPs was eliminated as of January 1, 2008. Beginning in 2008, the CPUC has authority over the disposition of SEPs for above-market costs.

  As noted by the Senate Energy, Utilities and Communications Committee, SB 1036 eliminates the SEP program because the program was not achieving its purpose. As of January 1, 2008, no applications for SEPs had been approved.
- In March 2008, the Energy Commission refunded the New Renewable Resources Account's remaining unencumbered funds (totaling $461,681,784) to the electrical corporations whose ratepayers contributed funds to support the RRTF. These electrical corporations included Pacific Gas & Electric, San Diego Gas & Electric, Southern California Edison, and Bear Valley Electric Service (a division of Golden State Water Company).
- The enactment of SB 1036 removed the New Renewable Resources Account from the RRTF effective July 1, 2008.

Under the NRFP's original SB 90 funding, production incentives (cents per kWh payments for generated renewable energy) for proposed projects were allocated to the lowest bidders during three competitive solicitation processes. Production incentives are paid over a five-year period once a project begins generating electricity. Although the New Renewable Resources Account was eliminated July 1, 2008, active NRFP projects will continue to be paid for generation from those projects' previously encumbered RRTF funding award dollars.

- During this quarter, $121,285 in production incentives was paid to 2 facilities for 8.8 gigawatt-hours of renewable generation.
- Approximately $1.4 million is encumbered for the two remaining active accounts:
    - One project reached the end of their funding term on December 31, 2008. Payment of their final invoice will occur next quarter.
    - The last active project account will reach the end of their five-year payment period on December 30, 2009.

- Since the NRFP's inception in June 1998, forty-seven[2] projects were able to come online and generate electricity, representing 488 megawatts of new renewable energy capacity. The NRFP has paid a total of approximately $76.0 million in production incentives to new renewable generating facilities for 8,680 gigawatt-hours of generation.

Emerging Renewables Program

Over the last decade the Emerging Renewables Program has provided $405 million in rebates and production incentives to customers who have purchased and installed 28,448 renewable energy systems, representing 126 MW of capacity, to offset part or all of their electricity needs at their homes or businesses.

On December 31, 2006, the solar portion of the Emerging Renewables Program ended and was replaced on January 1, 2007, with the Energy Commission's New Solar Homes Partnership and the California Public Utilities Commission's California Solar Initiative. Fuel cells using renewable fuel and small wind turbines are still eligible for rebates under the Energy Commission's Emerging Renewables Program.

During this quarter, the Energy Commission paid $372,868 to 18 rebate applicants for completed projects located in investor-owned utility service areas. These completed projects represent 167 kW of generating capacity from photovoltaic and wind systems. Customers planning to install additional systems held approved rebate reservations totaling 1.7 MW of solar and wind capacity, encumbering about $4.5 million.

California Solar Initiative/New Solar Homes Partnership

The California Solar Initiative (CSI) is a $3.35 billion solar incentive program with the goal of installing 3,000 MW of capacity by 2016. The CSI is administered by the CPUC, Energy Commission, and publicly-owned utilities. The CPUC's portion of the CSI provides incentives to existing and new nonresidential customers and to existing residential customers. The Energy Commission's New Solar Homes Partnership (NSHP) offers incentives to encourage solar installations, with high levels of energy efficiency, in the residential new construction market for investor-owned electric utility service areas. Publicly-owned utilities administer solar incentive programs for their individual service areas.

The goal of the NSHP is to install 400 MW of capacity by 2016. Unlike the ERP, incentives under the NSHP are not capacity-based. Instead, the actual incentive for a particular system and installation, which is paid up-front, is dependent on an Expected Performance-Based Incentive calculation of the system's performance compared to a reference system. Since April to June of 2008, program administration has been subsumed under the investor-owned utilities, with oversight from the Energy Commission. With coordinated IOU administration of both the NSHP and Residential New Construction incentive programs, greater administrative efficiencies are being achieved, ultimately simplifying the application process for builders and retailers.

[2] The Wintec #2 wind project was split into two projects, but in order to maintain consistency with previous years, it will continue to be reported as one project.

NSHP Program Activity (includes Energy Commission and IOU activities)

As of March 31, 2009, a total of 624 applications, representing 7,213 residential solar systems, were in various stages of applying to the program. Of those, 120 applications, representing 418 residential systems, were listed as "Pending." (Pending applications are defined as applications in the initial stages of applying to the program and additional information is required before formally submitting the complete application package.)

The remaining 504 applications consisted of the following:

Custom Homes:	372 applications for 372 systems
Lg. Developments (solar standard):	87 applications for 6,214 systems
Other Developments:	45 applications for 209 systems
TOTAL:	**504 applications for 6,795 systems**

NSHP Disbursements[3]

- January to March 2009: Incentives totaling $2.6 million were paid for 0.93 MW of solar capacity.

- Cumulative payments through March 2009: Since the program's beginning in 2007, incentive payments total nearly $5.86 million. This represents 860 residential solar installations for 2.08 MW of renewable electricity capacity.

Additional NSHP Activities:

- The on-line application web tool continues to be refined, allowing greater ease of use, and also providing more information on program statistics.
- In response to comments from stakeholders on how to improve NSHP program participation, staff will be working to revise the Guidebook during the second quarter 2009. A staff workshop was held on April 10, 2009 to receive comments on staff-proposed revisions. At the direction of the Renewables Committee, a proposed Guidebook is anticipated to be issued in June.

Expenditures for the NSHP support contracts are reported under their funding source, the Consumer Education Program.

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[3] PG&E and SDG&E issue incentive payments directly to NSHP applicants and are later reimbursed by the Energy Commission upon request. Applicants to the SCE-administered NSHP are paid through the Energy Commission. Note that the Energy Commission's reported quarterly disbursements may not include all of PG&E's and SDG&E's incentive payments for the reporting quarter. This is due to the time lag between those utilities issuing a payment, submitting a reimbursement request, and subsequently being reimbursed by the Energy Commission. The Energy Commission expects to make a reimbursement payment to PG&E and SDG&E of $332, 313 for 0.12 MW in the next quarter for systems that were installed from January to March 2009. This expenditure will be captured in the April to June 2009 NSHP disbursements.

Existing Renewable Facilities Program

The Existing Renewable Facilities Program (ERFP) offers production incentives to biomass, solar thermal electric, and wind facilities. Incentive payments are tied to market prices, with no payments made if the market price is above a predetermined target price. Beginning 2007, under the Senate Bill 1250 program structure, individual facilities must apply for funding. Funding eligibility decisions will be made on a facility-by-facility basis.

The Energy Commission adopted the Sixth Edition of the *Existing Renewable Facilities Program Guidebook (ERFP Guidebook)* at its January 28, 2009, Business Meeting. The Energy Commission revised the *ERFP Guidebook* in response to Assembly Bill 3048 (Committee on Utilities and Commerce, Chapter 558, Statutes of 2008). AB 3048 amended Section 25742 of the Public Resources Code to remove restrictions on biomass fuels that could be used by facilities receiving production incentive payments from the ERFP. Accordingly, the changes to the *ERFP Guidebook* removed restrictions on biomass fuels per AB 3048. Additionally, the Sixth Edition clarified the incentive structure offered to facilities receiving "all-in" pricing and the provisions for distributing incentive payments to facilities receiving time-of-use payments. Other changes reduced reporting requirements for biomass facilities participating in the ERFP.

Per the *ERFP Guidebook*, 2009 calendar year funding applications were due to the Energy Commission on February 13, 2009. Applications for 27 biomass facilities representing 680 MW and for 8 solar thermal facilities representing 409 MW were approved for 2009 funding. Energy Commission staff expects payments for 2009 calendar year generation to begin during the fourth quarter of the 2008-2009 fiscal year.

During this quarter, the Energy Commission made $4,490,400 in payments to existing facilities for the 2008 calendar year generation. In 2008, participating biomass facilities generated 1,123 gigawatt-hours while solar thermal facilities generated 85.92 gigawatt-hours. This includes payments to the restarted 12.5 MW Chowchilla and 12.5 MW El Nido biomass facilities.

- To date, cumulative payments totaling $290 million have been made to existing facilities for generation.
- ERFP rollover funds from 2008— those remaining after payments have been made and rolled over to the next payment cycle as available funds — total $13.5 million.
- 544 renewable energy facilities are certified as RPS eligible renewable suppliers, with 140 eligible for funding from the ERFP.

Consumer Education Program

This program is designed to increase public awareness of renewable energy and its benefits, and to help build a consumer market for renewable energy and small-scale emerging renewable technologies.

New Solar Homes Partnership

Contract support activities:

ProProse contract for $105,000 assists the NSHP campaign by securing varying levels of partnerships. These include builders' participation in the program, financial institutions offering energy efficiency and solar-friendly loans or programs, realtors and appraisers, utilities, and other entities to help leverage the NSHP's outreach and public awareness campaign dollars. The Department of General Services approved an amendment of an additional $145,000 on May 20, 2008 for a combined total of $250,000 to continue efforts of partnership development for purposes of leveraging dollars for the NSHP Public Awareness Campaign. This amendment extends the term of the contract through the end of 2009 to coordinate with the Edelman contract noted below.

Contractor activities this quarter included the following:

- Researched and contacted potential partners for the 2008 and 2009 campaigns, including:
    - Eco-Chic, California Center for Sustainable Energy (CCSE), Eco-Lawn and Solio (solar phone chargers) for possible prize contributions to the 2009 GO Solar California sweepstakes
    - Advanced Solar and their upcoming events
    - California Association of Realtors
    - Clear Channel to develop the 2009 sweepstakes concept
    - Researching and attending the West Coast Green conference to seek out potential partners
    - Building Industry Association of Southern California regarding builder involvement and participation
    - Southern California Edison

  Continued developing and revising the partnership framework by meeting with the Energy Commission legal department to determine the partnership structure approach for 2009 and incorporated feedback from Clear Channel and Edelman
- Continued developing and implementing the Go Solar California media strategy with a planning meeting between the utilities and the CPUC about joint partnership ideas
- Advised and provided technical expertise that included:
    - Reviewing and editing the local government municipality outreach plan
    - Discussing feasibility of possible NSHP road tour for 2009 campaign
- Attended bi-weekly status meeting with NSHP team

Expended $ 13,912

Edelman's three-year contract for $4.3 million provides an array of marketing and media planning services. These include market research to analyze and identify California home buyers who are most likely to seek higher levels of energy efficiency and solar photovoltaic

systems when purchasing new homes; determining the most effective messaging, logo design, and branding; creative development (advertisements and print collateral); and ad placement.

Contractor activities this quarter included the following:

- Continued partnership outreach with:
    - Shell oil and their solar program
    - Starbucks
        - Developed concept and drafted possible quotes to be included on Starbucks cups
    - Wal-Mart
    - Disney
    - Safeway
    - California Grocers Association
    - Petersen Dean Roofing and Solar Systems (formally known as Old Country Roofing) and SunPower to discuss planning for 2009 media and outreach activities
- Continued marketing outreach by:
    - Developing the 2009 marketing and media plan goals, strategies, and measurement document
    - Contacting the California Broadcaster's Association regarding participation in a Go Solar public service announcement project for the 2009 Marketing and Media plan
    - Reviewing and editing the solar alert radio spots
    - Reviewing and providing results from the e-mail blast that educates prospective new home buyers about the NSHP
    - Revising the Flikr and YouTube website pages that highlight the activities of the NSHP and educate consumers about new energy efficient solar homes
    - Tracking web adverting results with the use of google.com analytics code
    - Updating the Master Partnership Database
    - Reviewing and finalizing the 2008 Campaign Summary report
- Continued developing new NSHP marketing materials and collateral including:
    - Finalized edits to the Go Solar California logo standards
    - Designed consumer, builder, and NSHP community insert brochures
    - Designed vertical banners for use at builder and consumer tradeshows
    - Redesigned the Builder Outreach Kit
        - Researched and compiled new articles
    - Developed the Nonprofit Developer Outreach Kit for affordable housing developers

    - Designed and created a mock-up of a reusable/recycled tote bag
- Continued media outreach that includes:
    - Formulating outreach plans to engage solar home owners and builders to speak with the media
    - Following up with the San Bernardino Sun, Los Angeles Times and Fresno Bee regarding recent solar articles
    - Researching long lead pitching opportunities
    - Conducting outreach to Green Builder Magazine and Construction Today.
    - Developing op-ed ideas
    - Monitoring media, developing short and long-lead trade and consumer media pitches, conducting media outreach and follow up
    - Researching upcoming editorial opportunities in business journals and trade publications
    - Developing the media publication database
    - Developing new reporting format for media in 2009
- Continued developing and attending a variety of events to promote the NSHP that includes:
    - Reviewing enrolled NSHP community data and determining marketing support levels for each community
    - Developing 2009 events calendar
    - Coordinating NSHP marketing insert for the Building Industry Association of the Delta event to include in new member packets
    - Coordinating kiosk logistics and presentation with Southern California Edison for the Building Industry Show in Long Beach
    - Researching and developing Green California conference panel submission
    - Discussing Earth Day launch ideas and researching locations and other events
    - Developing logistics for the Clear Channel Go Solar California sweepstakes:
        - Reviewing sweepstakes entry numbers and kiosk logistics
        - Reviewing and editing sweepstakes opt-in email and announcement including media outreach, splash page design, and photos
        - Drafting and submitting sweepstakes winner outreach plan
        - Discussing winner status and promotion with Clear Channel
        - Developing and finalizing 2008 Go Solar California Sweepstakes media outreach recap report

- Continued development of market research activities including reviewing the post-advertising survey report and topline post-advertising summary that discussed the recent survey of consumer attitudes toward solar
- Continued development and promotion of the affordable housing component of the NSHP including:
    - Planning for NSHP activities at Housing California's Annual Conference for affordable housing developers
    - Reviewing the Affordable Housing Builder Outreach Kit
    - Submitting a guest column about the NSHP affordable housing program to Green Builder Magazine
- Continued development and promotion of the NSHP to local governments and municipalities including:
    - Reviewing the municipal outreach plan
    - Developing and reviewing the documents for the Municipal Tool Kit
    - Collecting local government contact information
    - Drafting content for collateral materials
    - Working on model ordinances and resolutions
- Attended bi-weekly status meeting with NSHP team

Expended $454,251

KEMA Contract, #500-04-027

Technical assistance contract provides support for Consumer Education activities as follows:

- California Utility Allowance Model work: Contractor is in the final stages of developing a quantitative model to be made available to California's affordable housing community to estimate project-specific utility expenses for affordable housing developments. The model is capable of estimating utility expenses for projects with and without solar systems. Expenditures this quarter included cross-referencing the Certified Energy Plans Examiner list with the Home Energy Rating System list, developing several new software upgrades based on stakeholder and staff feedback and updating the user manual to reflect these upgrades, and presenting at two stakeholder workshops.

  Expended $11,793

KEMA Contract, #400-07-030

A second contract with KEMA, Incorporated, was executed on July 11, 2008 for a three-year term, ending April 30, 2011, for a total of $3,681,000. Under this contract, KEMA will provide technical assistance to the Renewable Energy Program, including Consumer Education-related activities. Currently, there is no work being conducted in support of Consumer Education; consequently, there are no expenditures to report for this quarter.

ADDITIONAL RENEWABLE ENERGY PROGRAM ACTIVITIES

Cost Benefit Study of Self-Generation Incentive Program

Under Assembly Bill 2778 (Lieber, Chapter 617, Statutes of 2006), on or before November 1, 2008, the Energy Commission, in consultation with the CPUC and California Air Resources Board, must evaluate the costs and benefits, including air pollution, efficiency, and transmission and distribution system improvements, of providing ratepayer subsidies for renewable and fossil fuel "ultraclean and low-emission distributed generation" as part of the CPUC's Self-Generation Incentive Program (SGIP). The Energy Commission's evaluation must be conducted as part of its *Integrated Energy Policy Report (IEPR)*. The Energy Commission must include recommendations for changes in the eligibility of technologies and fuels under the Self-Generation Incentive Program, and whether the level of subsidy should be adjusted after considering its conclusions on costs and benefits.

A contract with TIAX, Inc. was approved by the Energy Commission to provide the comprehensive cost-benefit analysis of electric generation technologies related to the CPUC's SGIP. The findings and recommendations from the consultant's final report are included in the *2008 IEPR Update*, which was adopted by the Energy Commission in November 2008. The report is available on the Energy Commission's website at www.energy.ca.gov/2008publications/CEC-300-2008-010/CEC-300-2008-010-F.PDF. Following is a brief summary of the report's recommendations:

- Program eligibility should be based on overall efficiency and performance of systems, regardless of fuel type.
- The CPUC should consider reinstituting formerly eligible engine and turbine technologies that operate on nonrenewable and renewable fuels.
- The CPUC should require IOUs to procure distributed generation or combined heat and power in areas that provide locational benefits to the system.

The TIAX contract was closed December 31, 2008. Retention is anticipated to be billed next quarter.

Guidelines for California's Solar Electric Incentive Programs

Senate Bill 1 (Murray, Chapter 132, Statutes of 2006) requires the Energy Commission, in consultation with the CPUC, local publicly-owned electric utilities, and interested members of the public, to establish eligibility criteria for solar energy systems; conditions for incentives; and rating standards for equipment, components, and systems for electric ratepayer-funded solar energy incentive programs in California by January 1, 2008.

The bill identifies the following conditions for receiving ratepayer-funded incentives:

- High quality solar energy systems with maximum system performance to promote the highest energy production per ratepayer dollar.
- Optimal system performance during periods of peak demand.

- Appropriate energy efficiency improvements in the new and existing home or commercial structure where the solar energy system is installed.

In September, staff issued a draft document proposing the following changes to the current *Guidelines*: address other solar electric generating technologies and specify eligibility requirements, update the energy efficiency requirements by defining the Tier levels for the new construction buildings to reflect the adopted 2008 Title 24 (Part 6) Building Energy Efficiency Standards, address the concerns of the CPUC's California Solar Initiative program administrators and publicly owned utilities, and make other non-substantive changes. A Committee workshop was held on September 29, 2008 to present the draft *Guidelines*' proposed changes and to solicit public comment from interested parties. After further review, the *Guidelines for California's Solar Electric Incentive Programs Pursuant to Senate Bill 1, 2nd Edition* were adopted at the Energy Commission's December 3, 2008 business meeting. The current guidelines can be found on the Energy Commission's website at:
http://www.energy.ca.gov/2008publications/CEC-300-2008-007/CEC-300-2008-007-CMF.PDF

Other SB 1 requirements to be completed by the Energy Commission include:

- Initiate a public proceeding to study and make findings on whether, and under what conditions, solar energy systems should be required on new residential and new nonresidential buildings, including the establishment of numerical targets. The study is to be updated periodically.
- Develop an offset program that allows a developer or seller of production homes[4] to forego the offer requirement[5] on a project by installing solar energy systems generating specified amounts of electricity on other projects, including, but not limited to, low-income housing, multifamily, commercial, industrial, and institutional developments. The amount of electricity required to be generated from solar energy systems used as an offset must be equal to the amount of electricity generated by solar energy systems installed on a similarly sized project within that climate zone, assuming 20 percent of the prospective buyers would have installed solar energy systems.

[4] "Production home" means a single-family residence constructed as part of a development of at least 50 homes per project that is intended or offered for sale.

[5] SB 1 requires a seller of production homes to offer a solar energy system option to all customers that enter into negotiations to purchase a new production home constructed on land for which an application for a tentative subdivision map has been deemed complete on or after January 1, 2011, and disclose (1) the total installed cost of the solar energy system option and (2) the estimated cost savings associated with the solar energy system option.

- Publish educational materials designed to demonstrate how builders may incorporate solar energy systems during construction as well as energy-efficiency measures that best complement solar energy systems.
- Develop and publish the estimated annual electrical generation and savings for solar energy systems. The estimates must vary by climate zone, type of system, size, lifecycle costs, electricity prices, and other factors the Energy Commission determines to be relevant to a consumer when making a purchasing decision.
- Provide assistance to builders and contractors, which could include technical workshops, training, educational materials, and related research.
- Conduct annual random audits of solar energy systems to evaluate their operational performance.
- Evaluate the costs and benefits of having an increased number of operational solar energy systems as part of the electrical system with respect to their impact on the distribution, transmission, and supply of electricity, using the best available load profiling and distribution operations data from the CPUC, local POUs, and electrical corporations, and performance audits of installed solar energy systems.